

S/N 09/492,913

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellants: Anthony M. Eaton et al.

Examiner: Lun Lao

Serial No.: 09/492,913

Group Art Unit: 2614

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Docket No.: 899.011US1

Customer No.: 21186

Confirmation No.: 1549

Title: HEARING AID SYSTEMS

REQUEST FOR REHEARING UNDER 37 C.F.R. § 41.52

MS Appeal Brief - Patents
Commissioner for Patents
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In compliance with 37 C.F.R. § 41.52, Appellants hereby request a rehearing of the Decision of the Board of Patent Appeals and Interferences dated August 19, 2010 (Decision) in Appeal No. 2009-003730 affirming the rejections of record.

Appellants respectfully request consideration of the affirmance, and for reversal of the standing rejections. Appellants argue the findings of the Board in the Decision for reconsideration as follows:

Board's Findings

I. The Board found that the combined teachings of Hagen and Anderson do disclose all of the subject matter of claim 1, and that Appellants' arguments to the contrary are based upon improperly considering the prior art references *individually* (Decision, at page 4 lines 1-9).

II. The Board found that Anderson provides sufficient motivation to modify Hagen so as to substitute a wireless communication protocol for the cable that interconnects Hagen's host computer and PMU (Decision, at page 4 lines 10-13).

Consequently, the Board affirmed the rejections of record.

Appellants respectfully submit that the Board's findings were erroneous because:

- A. Appellants arguments are properly directed against the Examiner's factually incorrect assertion regarding Anderson that forms the basis for the rejection.
 - (1) The Examiner argues that Anderson's RPU 16 programs device 10.
 - (2) The RPU 16 does not program device / earpiece 10. Rather, the RPU is the object of the programming.
 - (3) The software (hearing test program) in the RPU 16 is not software to program the hearing device 10. RPU is the remote processing unit of the hearing aid system, were the system includes both the RPU 16 and the earpiece 10 (Anderson, Abstract).
 - (4) The "secondary wireless link circuitry" 19 is neither expressly nor inherently a programming fitting server.

- B. Appellants further assert that one would not modify Anderson's RPU to program software in the earpiece, and would not modify Hagen et al.'s multiprogram unit.
 - (1) Modifying the multiprogram unit of Hagen et al. to be like the RPU of Anderson would improperly render Hagen et al. unsatisfactory for its intended purpose or change the principle of operation of Hagen et al.
 - (2) Modifying the RPU of Anderson to be like the multiprogram unit of Hagen et al. would improperly render Anderson unsatisfactory for its intended purpose or change the principle of operation of Anderson.
 - (3) Anderson teaches away from Hagen's multiprogram unit.

C. One would not be motivated to expend the additional effort to substitute a mobile wireless communication protocol for a cable to provide a temporary connection between a multiprogram unit and a local computer (*see* Examination Guidelines Update: Developments in the Obviousness Inquiry After KSR v. Teleflex (Fed. Reg. 53643, 536446), August 20, 2010).

(1) There is no clearly articulated reasoning with a rational underpinning to take the isolated feature of the wireless link to the RPU 16 out of the context of the disclosure of Anderson in order to combine it with Hagen et al.

(2) The Office does not consider the interrelated context for the claimed subject matter and the interrelated context for the references; the Office has not considered the Anderson reference in its entirety (as a whole), including portions that lead away from the claimed subject matter

(3) Hardware link and wireless link are not art recognized functional equivalents.

(A) Appellants arguments are properly directed against the Examiner's factually incorrect assertion regarding Anderson that forms the basis for the rejection.

The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3) the level of skill in the art. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966). *See also KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct 1727, 1734, 82 USPQ2d 1385, 1391 (2007).

Appellants' arguments did not improperly consider the prior art references individually. Rather, Appellants arguments were properly directed against a factually incorrect assertion made by the Examiner that forms the basis for the rejection.

As identified in by the Board (Dec. 3-4), the **Examiner finds** (Ans. 3) that Hagen discloses all of the limitations of representative claim 1 except for the claim limitation requiring that the **programming fitting server** use a **mobile wireless protocol**. The **Examiner argues**: “Anderson teaches **programming** (adjusting hearing compensation) **hearing devices** (10, fig. 1), wherein the communication between **a mobile device** (16, col. 3, line 51-col. 4 line 14) and a **programming fitting server** (19) (col. 27 line 21-24) uses a mobile wireless communication protocol (see col. 25 line 15-col. 26 line 23)” (Ans. 3-4).

(A)(1) The Examiner's rejection is based on his characterizing the RPU 10 as the mobile device, the earpiece 10 as the hearing device/hearing aid, and the optional secondary wireless link circuitry 19 as the programming fitting server.

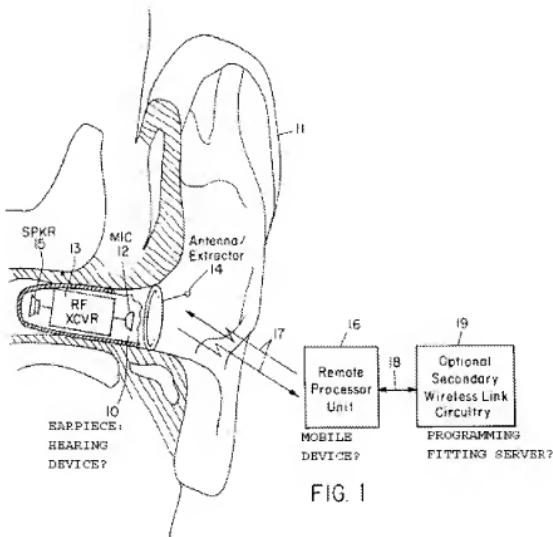


FIG. 1

(A)(2) The RPU 16 of Anderson (characterized by the Examiner as "mobile device") does not program the earpiece/hearing device 10 (Br. 12).

The Examiner bases the rejection on his finding that "Anderson teaches **programming** (adjusting hearing compensation) **hearing devices (10)**." Appellants' claimed method (claim 1) programs software in a hearing aid using the programming fitting server and the mobile device. If the RPU of Anderson is characterized by the Examiner as the mobile device and the earpiece as the hearing device (hearing aid), then that mobile device (RPU) should be used to program software in the hearing device as asserted by the Examiner.

However, the RPU of Anderson does not program the earpiece/hearing device (Br. 12). Rather than being used to program, the RPU 16 of Anderson is the object of the programming.

The RPU 16 is not used to program software in the earpiece 10 (see e.g. col. 1, lines 63-65 and col. 2, lines 36-39). Anderson loads, through the secondary wireless link, a hearing test program controlling the operation of the RPU during a hearing test into the RPU in order to temporarily store the hearing test program in the RPU for the duration of the hearing test (see col. 27, lines 17-24). This hearing test program is used by the RPU to perform a hearing test. The hearing aid test program is not used to program a hearing aid earpiece (Br. 11). Thus, the RPU in Anderson is not the mobile device recited in Appellants' claims.

(A)(3) The Office mischaracterizes element 19 (“optional secondary wireless link circuitry”) of Anderson as a programming fitting server (Br. 12).

It is improper to assume that the hearing test program is provided by a programming fitting server. There is no express or inherent disclosure of a programming fitting server. Anderson indicates that element 19 is “optional secondary wireless circuitry”, and states: “The RPU 16 may be connected (via wired or wireless means 18) to optional secondary wireless link circuitry 19 that allows wireless communication between the RPU and other sources of information (e.g. the general subscriber telephone network) via a secondary wireless link” (col. 4 lines 7-12).

(B) One would not be motivated to modify Hagen’s multiprogram unit / Anderson’s RPU into a mobile device used to program software in a hearing aid earpiece.

Appellants respectfully assert that the Examiner mischaracterized Anderson’s RPU as a mobile device that programs software in earpiece / hearing device 10. Appellants further assert that one would not modify the “mobile device” using these references.

A proposed modification cannot render the prior art unsatisfactory for its intended purpose (MPEP 2143.01 (V), citing In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984); and a proposed modification cannot change the principle of operation of a reference (MPEP 2143.01 (VI), citing In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

(B)(1) Modifying the multiprogram unit of Hagen et al. to be like the RPU of Anderson would destroy the ability of Hagen et al. to program hearing aid earpieces (improperly rendering Hagen et al. unsatisfactory for its intended purpose or changing the principle of operation of Hagen et al.) (Br. 12).

The RPU and test program (argued by the Examiner as being transmitted via wireless link) in the RPU of Anderson do not perform the same function as the multiprogram unit used to program hearing aids of Hagen et al.. One would not substitute the downloading of the hearing test program into the RPU of Anderson for downloading the hearing aid programs from a host through a wired connection into a multiprogram unit used to program hearing aid earpieces of Hagen et al. Such a substitution would make Hagen et al. inoperable to program hearing aid earpieces because the RPU and the test program in the RPU of Anderson are not used to program hearing aid earpieces.

(B)(2) Modifying the RPU of Anderson to be like the multiprogram unit of Hagen et al. would destroy the ability of Anderson to process signals in the RPU rather than the earpiece (improperly rendering Anderson unsatisfactory for its intended purpose or changing the principle of operation of Anderson) (Br. 13).

Anderson performs signal enhancement in the RPU, and Anderson asserts an advantage is relaxed size and power constraints realized by performing signal processing in the RPU rather than the earpiece (e.g. col. 1 line 63 to col. 2 line 6; col. 2 lines 36-39). Combining Anderson with Hagen et al. to program earpieces would destroy Anderson's purpose of performing signal processing in the RPU. One would not substitute the downloading of the hearing aid programs from a host through a wired connection into a multiprogram unit used to program hearing aid earpieces of Hagen et al. for the downloading the hearing test program into the RPU of Anderson, since the multiprogram unit would make Anderson inoperable to process the signals external to the earpiece (the multiprogram unit of Hagen et al. does not process signals external to the earpiece, as performed by the RPU). The multiprogram unit used to program hearing aids of Hagen et al. has a different function than the RPU and test program in the RPU of Anderson.

(B)(3) Anderson teaches away from Hagen's multiprogram unit (Br. 12).

Hagen et al. program earpieces. In contrast, the RPU of Anderson is programmed, and is not used to program software in the earpiece (see e.g. col. 1, lines 63-65 and col. 2, lines 36-39 “Processing for all major system capabilities, such as amplification and other forms of signal enhancement, takes place in the RPU where size and power constraints are relaxed, leading to a cost-effective design”). Therefore, Hagen et al. and Anderson each teach away from the disclosure of the other reference, so that the skilled person would not have contemplated or been motivated to combine these references (see, for example, MPEP 2145 X D).

(C) One would not be motivated to expend the additional effort to substitute a mobile wireless communication protocol for a cable to provide a temporary connection between a multiprogram unit and a local computer.

In recent (**August 20, 2010**) guidelines, the Patent Office indicates “the claimed invention may nevertheless be nonobvious when the combining step involves such additional effort that no one of ordinary skill would have undertaken it without a recognized reason to do so.” Examination Guidelines Update: Developments in the Obviousness Inquiry After KSR v. Teleflex (Fed. Reg. 53643, 536446). In Hagen et al., the computer and the multiprogram unit are local to each other. One would not be motivated to expend the additional effort to “use a mobile wireless communication protocol” without a recognized reason to do so.

(C)(1) There is no clearly articulated reasoning with a rational underpinning to take the isolated feature of the wireless link to the RPU 16 out of the context of the disclosure of Anderson in order to combine it with Hagen et al. (Br. 13).

As shown in FIG. 9 and described in e.g. col. 14, lines 3-5 of Hagen et al., the multiprogram unit 320 is temporarily connected to the PCMCIA card 300 via a cable 314, wherein the multiprogram unit 320 is located in the immediate vicinity of the PCMCIA card 300. The wired communication link between the multiprogram unit 320 and the PCMCIA card 300 provides for short range communication in the order of a few meters. By contrast, the secondary wireless link in Anderson is adapted for communication between the RPU and the general subscriber telephone network or voice paging services (see e.g. col. 2, lines 49-51). Since the

latter communication is to be established and maintained by the RPU and the RPU is a device carried around by a person, the communication over the secondary wireless link has to be effective at least over significantly larger distances.

A skilled person would not have contemplated or been motivated to replace the cable 314 of Hagen et al., adapted to temporarily connect a hand-held or laptop computer 236 (see e.g. col. 13, lines 16-19) to a multiprogram unit 320 disposed stationary and local to the computer 236, with a communication link adapted for maintaining long range communication. If the computer and the multiprogram unit are local to each other as illustrated in Hagen et al., one would not be motivated to use a long distance wireless link in place of the cable. If the computer and the multiprogram unit are local to each other as illustrated in Hagen et al., the substitution of the long distance wireless link for the cable connection would not provide more convenience, as asserted by the Office, for making a connection to a local computer. Rather, at the time of the invention, the substitution would require significant effort, such that it would be in fact more convenient to use a cable to make a temporary connection to a local computer. One of ordinary skill would not have undertaken such additional effort to provide a wireless link that maintains long range communication to provide a local connection to a computer. The objectives and characteristics of these communication links are very different from each other.

(C)(2) The Office does not consider the interrelated context for the claimed subject matter and the interrelated context for the references; the Office has not considered the Anderson reference in its entirety (as a whole), including portions that lead away from the claimed subject matter (Br. 11).

Anderson loads, through the secondary wireless link, a hearing test program controlling the operation of the RPU (characterized by the Examiner as “mobile device”) during a hearing test into the RPU in order to temporarily store the hearing test program in the RPU for the duration of the hearing test (see col. 27, lines 17-24). This hearing test program is used to perform a hearing test. The hearing aid test program is not used to program a hearing aid earpiece, as Anderson performs signal processing in the RPU and not in a hearing aid earpiece. Further, the hearing test program in the RPU of Anderson is unrelated to downloading hearing aid programs from a host through a wired connection into a multiprogram unit used for programming a hearing aid earpiece.

(C)(3) Hardware link and wireless link are not art recognized functional equivalents.

The Board relies “hearing test program may be loaded into the RPU DSP 948 through the secondary wireless link 944 or a wired peripheral link 950” as evidence that “Anderson discloses that a hardwire link and a wireless link were art recognized functionally equivalent means for establishing digital communication between a mobile device and a server.” Appellants respectfully assert that this does not indicate that they are “art recognized functionally equivalent means for establishing digital communication between a mobile device and a server.” At the time of the invention, a wireless link involves much more effort than a hardwire link. In Hagen, the computer and the multiprogram unit are local to each other. The cable 314 of Hagen et al. is adapted to temporarily connect a hand-held or laptop computer 236 (see e.g. col. 13, lines 16-19) to a multiprogram unit 320 disposed stationary and local to the computer 236. The communication link adapted for maintaining long range communication. One would not be motivated to expend the additional effort to “use a mobile wireless communication protocol” without a recognized reason to do so.

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Page 11

Dkt: 899.011US1

CONCLUSION

To facilitate prosecution of this application, please telephone the undersigned at (612) 373-6960.

If necessary, please charge any additional fees or credit overpayment to Deposit Account 19-0743.

Respectfully submitted,

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Kathryn Grinnell

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